Remarks

Applicants by this Preliminary Amendment are amending Claims 1, 24, 26 and 27 in order to prevent any possible confusion about the meaning of the Claims. As amended, these Claims are directed specifically to a mutation of the glutamic acid residue at amino acid position 29 of the A subunit of the cholera holotoxin. Support for the amendment of these Claims is found at page 4, lines 1-5 of the application. No new matter is added by this amendment.

Applicants are also presenting new dependent Claims 28-42 in place of dependent Claims 18-23. Both sets of Claims depend from Claim 17. Claims 28-42 parallel Claims 2-16, which depend from Claim 1. No new matter is added by this amendment.

Applicants respectfully request that this Preliminary Amendment be entered and that the application be examined on the basis of Claims 1-17 and 24-42.

Respectfully submitted,

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Version With Markings To Show Changes Made

1. (Amended). An antigenic composition comprising a selected antigen from a pathogenic bacterium, virus, fungus or parasite and an effective adjuvanting amount of a mutant cholera holotoxin, wherein the holotoxin has reduced toxicity compared to a wild-type cholera holotoxin and has a substitution [other than aspartic acid for the glutamic acid] at position 29 of the A subunit of the cholera holotoxin, wherein the glutamic acid residue is replaced by an amino acid other than aspartic acid, and wherein said holotoxin enhances the immune response in a vertebrate host to said antigen.

18. (Cancelled).

19. (Cancelled).

20. (Cancelled).

21. (Cancelled).

22. (Cancelled).

23. (Cancelled).

24. (Amended). A plasmid containing an isolated and purified DNA sequence comprising a DNA sequence which encode an immunogenic mutant cholera holotoxin having a

substitution [other than aspartic acid for the glutamic acid] at position 29 of the A subunit of the cholera holotoxin, wherein the glutamic acid residue is replaced by an amino acid other than aspartic acid, and wherein the DNA sequence is operatively linked to an arabinose inducible promoter.

26. (Amended). A method of producing an immunogenic mutant cholera holotoxin, wherein the cholera holotoxin has reduced toxicity compared to a wild-type cholera holotoxin and has a substitution [other than aspartic acid for the glutamic acid] at position 29 of the A subunit of the cholera holotoxin, wherein the glutamic acid residue is replaced by an amino acid other than aspartic acid, which comprises transforming, transducing or transfecting a host cell with the plasmid of Claim 24 and culturing the host cell under conditions which permit the expression of said recombinant immunogenic detoxified protein by the host cell.

27. (Amended). Use of effective adjuvanting amount of a mutant cholera holotoxin, wherein the holotoxin has reduced toxicity compared to a wild-type cholera holotoxin and has a substitution [other than aspartic acid

for the glutamic acid] at position 29 of the A subunit of the cholera holotoxin, wherein the glutamic acid residue is replaced by an amino acid other than aspartic acid, in combination with a selected antigen from a pathogenic bacterium, virus, fungus or parasite, to prepare an antigenic composition, wherein said holotoxin enhances the immune response in a vertebrate host to said antigen.